

## **ABSTRACT**

An RFID system includes transponders transmitting or receiving packetized data in standard form in lieu of custom format for applications executable in a mobile device or network. Tag data may be packetized in any of several standard formats. Each format includes a layer to identify packet format. In one embodiment, a tag contains a standard UDP header with a checksum and payload data. The application opens a socket to listen to UDP connections. The device transmits a RF signal activating tags which transmit UDP packets to a RFID reader in the device. The packets are passed to an IP stack which strips away the UDP header and validity of the checksum verified. If verified, the device transmits the payload to an application running in the device or a network, otherwise, the IP stack notifies the tag the transmission failed and requests re-transmissions which are repeated until a successful transmission occurs.